

p-p53 (Thr 155): sc-17105

BACKGROUND

p53 is a DNA-binding, oligomerization domain- and transcription activation domain-containing tumor suppressor that up-regulates growth arrest and apoptosis-related genes in response to stress signals, thereby influencing programmed cell death, cell differentiation and cell cycle control mechanisms. p53 localizes to the nucleus yet can be chaperoned to the cytoplasm by the negative regulator MDM2, an E3 ubiquitin ligase that is up-regulated in the presence of active p53, where MDM2 polyubiquitinates p53 for proteasome targeting. p53 can assemble into tetramers in the absence of DNA, fluctuates between latent and active (DNA-binding) conformations, and is differentially activated through post-translational modifications including phosphorylation and acetylation. Mutations in the DNA-binding domain (DBD) (amino acids 110-286) of p53 can compromise energetically favorable association with *cis* elements and are implicated in several human cancers. Phosphorylation of p53 at residue Thr 155 is mediated by the COP9 signalosome (CSN) and targets p53 to ubiquitin-26S proteasome-dependent degradation.

CHROMOSOMAL LOCATION

Genetic locus: TP53 (human) mapping to 17p13.1.

SOURCE

p-p53 (Thr 155) is available as either goat (sc-17105) or rabbit (sc-17105-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Thr 155 phosphorylated p53 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17105 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-p53 (Thr 155) is recommended for detection of Thr 155 phosphorylated p53 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-p53 (Thr 155) is also recommended for detection of correspondingly phosphorylated p53 in additional species, including equine, bovine, porcine and avian.

Suitable for use as control antibody for p53 siRNA (h): sc-29435, p53 siRNA (m): sc-29436, p53 shRNA Plasmid (h): sc-29435-SH, p53 shRNA Plasmid (m): sc-29436-SH, p53 shRNA (h) Lentiviral Particles: sc-29435-V and p53 shRNA (m) Lentiviral Particles: sc-29436-V.

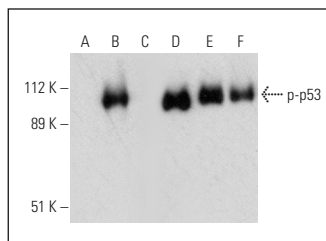
Molecular Weight of p-p53: 53 kDa.

Positive Controls: A-431 + EGF whole cell lysate: sc-2202, A-431 + PMA cell lysate: sc-2261 or MCF7 + etoposide cell lysate: sc-2281.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Western blot analysis of p53 phosphorylation in untreated (A, D), CK2a1 treated (B, E) and CK2a1 and lambda protein phosphatase (sc-200312A) treated (C, F) p53 fusion proteins. Antibodies tested include p-p53 (Thr 155): sc-17105 (A, B, C) and p53 (Pab 240): sc-99 (D, E, F).

SELECT PRODUCT CITATIONS

1. Yang, W.H., Kim, J.E., Nam, H.W., Ju, J.W., Kim, H.S., Kim, Y.S. and Cho, J.W. 2006. Modification of p53 with O-linked N-acetylglucosamine regulates p53 activity and stability. *Nat. Cell Biol.* 8: 1074-1083.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **p-p53 (D-9): sc-377567** or **p-p53 (B-12): sc-377564**, our highly recommended monoclonal alternatives to p-p53 (Thr 155).